Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by: Min Wang

GENERAL INFORMATION:

Name:	Ensign-Bickford Aerospace & Defense Company
Address:	State Route 175 Graham, KY 42344
Date application received:	2/16/2007
SIC Code/SIC description:	3482, Small Arms Ammunition
Source ID:	21-177-00079
Source A.I. #:	40689
Activity ID:	APE20070001
Permit:	F-07-017

APPLICATION TYPE/PERMIT ACTIVITY:

[X] Initial issuance
[ ] Permit modification
__Administrative
__Minor
__Significant
[ ] Permit renewal
[ ] General permit
[X] Conditional major
[ ] Title V
[X] Synthetic minor
[X] Operating
[ ] Construction/operating

COMPLIANCE SUMMARY:

[ ] Source is out of compliance
[ ] Compliance schedule included
[ ] Compliance certification signed

APPLICABLE REQUIREMENTS LIST:

[ ] NSR
[ ] PSD
[ ] Netted out of PSD/NSR
[ ] NSPS
[ ] NESHAPS
[X] Not major modification per 401 KAR 51:001, 1(116)(b)
[X] SIP
[ ] Other

MISCELLANEOUS:

[ ] Acid rain source
[ ] Source subject to 112(r)
[X] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[ ] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[X] Certified by responsible official
[X] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)	Allowable (tpy)
PM/PM_{10}	0.016	0.186	NA
SO_2	0	0.013	NA
NOx	0	2.102	NA
CO	0	1.766	NA
VOC	1.51	819.24	< 90
Single HAPs > 9 tpy	None	457.026 (Methylene chloride)	< 9
Source wide HAPs > 22.5 tpy	None	457.060	< 22.5

SOURCE DESCRIPTION:

Ensign-Bickford Aerospace & Defense Company (EBA&D) is a manufacturer of explosive products serving both the Aerospace & Defense industries. The Graham, KY facility manufactures cast-cure products via mixing and blending processes for military applications, extruded plastic bonded explosive for both military and commercial markets, as well as demolition and mine breaching systems. The Multiple Reaction Facility (MRF) at this facility utilizes chemical processes such as dissolution/recrystallization, vacuum stripping, and other chemical batch processes to create products such as Ultrafine RDX, MAPO and GAP.

In December 1998, a Conditional Major permit application was submitted on behalf of The Ensign-Bickford Company for the facility located at State Route 175, Graham, KY. On December 31, 2000, The Ensign-Bickford Company (EBCo) split into two companies: (1) The Ensign-Bickford Company, and (2) Ensign Bickford Aerospace & Defense Company. Both of these companies were subsidiaries of the parent company, Ensign-Bickford Industries, Inc. During May 2003, The Ensign-Bickford Company merged with Dyno Nobel, Inc., and the Graham, KY assets of The Ensign-Brickford Company were acquired by Dyno Nobel Inc.

To account for the aforementioned changes in company ownership, a revised Title V Permit application was submitted to the Division in April 2003. The revised application separated the emission sources contained in the 1998 application into EBA&D emission sources and Dyno Nobel, Inc. emission sources (previously EBCo sources). In February 2007, a new application was submitted to the Division that contained only Ensign-Bickford Aerospace & Defense Company emission facilities, and this application is the subject of this permit review. Equipment and pollutant emitting activities attributable to Dyno Nobel have been reviewed and approved by the Division under a separate permit to operate.

In their revised application dated February 2007, EBA&D indicated that the multiple reaction facility (MRF) and equipment described in construction permit C-91-165 will continue to be used; however, EBA&D will no longer manufacture tetranitrocarbizole (TNC) or nitro triazone (NTO). Thus, operating limitations and monitoring/recordkeeping requirements associated with NTO and TNC are not included in this permit. Further, under operating permit F-98-006 (Revision 2),

emissions from the glycidyl azide polymer (GAP) process consisted of xylene, a hazardous air pollutant (HAP). In a letter to the Division dated November 22, 2002, EBA&D made notice of a formulation change to the GAP process. Specifically, isobutyl isobutyrate (IBIB) which is not a HAP has replaced xylene as the carrier solvent in the GAP formulation. Therefore, prior operating and emission limitations pertaining to xylene are not included in this permit.

EBA&D has requested voluntary regulated pollutant emission limitations for this approval to be issued as a Conditional Major permit pursuant to 401 KAR 52:030. This permit is issued as the initial Conditional Major permit for this source.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

VOC and HAP Conditional Major Limitation:
Ensign Bickford Aerospace & Defense Company has requested voluntary permit emission limits of 9 tons per year (tpy) or less of a single hazardous air pollutant (HAP), 22.5 tpy or less of combined HAPs, and 90 tpy or less of volatile organic compounds (VOC). Compliance with these permit limits shall make the requirements of 401 KAR 52:020, Title V permits, not applicable to this source. Compliance with the VOC limit shall also make this source a synthetic minor source pursuant to 401 KAR 51:017, Prevention of significant deterioration of air quality. Compliance with these permit limits shall also make the requirements for major sources of HAP emissions, as defined at 40 CFR 63.2, not applicable to this source.